

REMARKS

By this amendment, claims 28-30 have been cancelled, claims 27 and 31-34 have been amended and claims 47-48 have been added. Claims 1-27 have been previously cancelled. Accordingly, claims 27 and 31-48 are currently pending in the application, of which claims 27, 33 and 39 are independent claims.

In view of the above amendments and the following Remarks, Applicant respectfully requests reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

Rejections Under 35 U.S.C. § 112, second paragraph

Claims 31 and 32 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicant respectfully traverses this rejection for at least the following reasons.

Claims 31 and 32 have been amended to replace “layer” and “pattern” with --area--, as the Examiner suggested. Thus, withdrawal of the rejection is respectfully requested.

Rejections Under 35 U.S.C. § 102

Claims 27-38 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U. S. Patent Publication No. 2004/0075798 issued to Inoue, *et al.* (“Inoue”). Applicant respectfully traverses this rejection for at least the following reasons.

In this response, independent claim 27 has been amended to incorporate the limitations of claims 28-30. Amended independent claim 27 recites:

“forming an organic insulating layer on the conductive layer, the organic insulating layer being photosensitive; exposing the photosensitive organic insulating film to a light beam through *a mask having an opaque area, a semitransparent area and a transparent area on predetermined areas thereof*; and developing the organic insulating layer to form the protrusion and the spacer, wherein the spacer is taller than the protrusion.”

An example of this claimed method is shown in Figs. 13C, 14 and 15. In Fig. 13C, a photosensitive organic insulating film 115 is coated onto the common electrode 115. The photosensitive organic insulating film 115 is patterned using a mask 100 shown in Fig. 14 or a mask 110 shown in Fig. 15. In Fig. 14, the mask 100 includes a slit pattern, a transparent pattern and an opaque pattern.

In this regard, Figs. 18a to Fig. 18e of Inoue show exposing the photoresist layer 50 using two different masks, but does not disclose or suggest “exposing the photosensitive organic insulating film to a light beam through *a mask having an opaque area, a semitransparent area and a transparent area on predetermined areas thereof*”.

Thus, it is submitted that claim 27 is patentable over Inoue. Claims 31 and 32 that are dependent from claim 27 would be also patentable at least for the same reason.

With respect to claims 33-38, amended independent claim 33 recites:

“...
forming a conductive layer on the color filter layer;
forming an insulating layer on the conductive layer;
forming a photoresist layer on the insulating layer; and
patternning the insulating layer and the photoresist layer to form the protrusion and the spacer, wherein the spacer is taller than the protrusion.”

An example of these claimed features are shown in 13A, 13B, 13C, 14, 15, 16, 17A, 17B and 17C of the present application. For example, Fig. 13C shows a photosensitive organic insulating film 115 coated on the common electrode 115. A photoresist film 125 is formed on the organic insulating film 115, as shown in Fig. 16. Fig. 17C shows the photosensitive organic insulating film 115 and the photoresist film 125 patterned to form the spacers and the protrusions.

In this regard, Inoue discloses forming a photoresist layer 50 on the conductive layer 26 (see Fig. 18a) but does not disclose or suggest “*forming an insulating layer on the conductive layer; forming a photoresist layer on the insulating layer; and patterning the insulating layer and the photoresist layer to form the protrusion and the spacer*”.

For this reason, it is respectfully submitted that claim 33 is patentable over Inoue. Claims 34-38 that are dependent from claim 33 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(e) rejection of claims 21 and 37-38.

Claims 39-46 stand rejected under 35 U.S.C. §102(e) as being allegedly anticipated by U.S. Patent No. 6,583,846 issued to Yanagawa, *et al.* (“Yanagawa”). Applicant respectfully traverses this rejection for at least the following reasons.

Independent claim 39 recites:

“...
forming a color filter layer on the black matrix layer;
forming a conductive layer on the color filter layer; and
forming a protrusion on a portion of the conductive layer ...”

An example of these features can be found in Fig. 11, in which the color filter 113 is formed on the black matrix layer 112. The conductive layer 114 is formed on the color filter 113 and the protrusion 116 is formed on the conductive layer 114.

In this regard, Yanagawa is directed to “Liquid crystal display device with *spacer covered with an electrode*” (Title of the Invention). For example, as shown in Fig. 17B, Yanagawa shows the counter electrode formed on the spacer 10. Thus, Yanagawa does not disclose or suggest “forming a protrusion on a portion of the conductive layer”, as claimed.

For this reason, it is submitted that claim 39 is patentable over Yanagawa. Claims 40-46 that are dependent from claim 29 would be also patentable at least for the same reason.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 102(e) rejection of claims 39-46.

Other Matters

In this response, claims 47 and 48 have been newly added to cover the features shown in Fig. 17C.

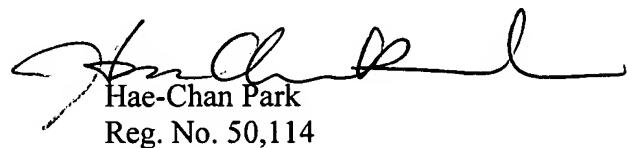
CONCLUSION

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



Hae-Chan Park
Reg. No. 50,114

Date: October 13, 2004

McGuireWoods LLP
1750 Tysons Boulevard
Suite 1800
McLean, VA 22102-4215
Tel: 703-712-5365
Fax: 703-712-5280
HCP:WSC/gjb